November, 1940

THE Petroleum Engineer

Vol. 12 No. 2
In Two Sections
Part 2

INDEX to Vol. XI
From October, 1939 to September, 1940, Inclusive

SUBJECT INDEX

TITLE OF ARTICLE AND AUTHOR	No.	Month	Page
GENERAL			
Alphabetical Subject Index to Decimal System for Classifying Petroleum Engineering Data (Part 2), Lester C. Uren	1	Oct.	53
Photoelastic Stress Studies of Various Types of Welded Joints, Kenneth N. Mills	1	Oct.	84
This Industry of Ours (Part 2), North Bigbee	1	Oct.	67
Hydraulic Couplings and Torque Converters—Their Principles and Design, R. M. Schaefer	2	Nov.	56
Alphabetical Subject Index to Decimal System for Classifying Petroleum Engineering Data (Part 3), Lester C. Uren	2	Nov.	85
This Industry of Ours (Part 3), North Bigbee	2	Nov.	123
New Pocket Transit Combines Functions of Several Instruments, Lew Suverkrop	3	Dec.	69
Temperature-Gravity Graph for Gravity Determinations, O. G. Vanderveer	3	Dec.	56
Proper Use and Care of Safety Equipment Essential in Cleaning Storage Tanks, F. Rutledge Davis	3	Dec.	66
Alignment Chart for Estimating the Mean Effective Pressure and Piston Speed of an Engine, Frank E. Hangs	3	Dec.	94
This Industry of Ours (Part 4, Concluded) North Bigbee	3	Dec.	97
Alphabetical Subject Index to Decimal System for Classifying Petroleum Engineering Data (Part 4), Lester C. Uren	4	Jan.	85
Dual Purpose Well Salvaged for Repressuring After Blow-out and Fire, Wallace A. Sawdon	5	Feb.	46
Alphabetical Subject Index to Decimal System for Classifying Petroleum Engineering Data (Part 5), Lester C. Uren	5	Feb.	69
Formula for Computing Yearly Cost of Belt Slip, W. F. Schaphorst	5	Feb.	112
Alphabetical Subject Index to Decimal System for Classifying Petroleum Engineering Data (Part 6, Conclusion), Lester C. Uren	6	Mar.	69
Methods of Supercharging Diesel Engines, Orville Adams	6	Mar.	89
Microfilming Facilitates Petroleum Engineering Field Studies, Carroll V. Sidwell	7	Apr.	73
X-Ray Method of Identifying Types of Scale-Forming Deposits, P. E. Fitzgerald	7	Apr.	161
Non-Glare Panel Aids Instrument Readings, Chas. C. Lynde	7	Apr.	167
Chemistry of Combustion, E. R. Spencer	9	June	139
Flexible Attachment for Tank Ladder, Chas. C. Lynde	11	July	36
Extension Handwheel Aids Well Control, Chas. C. Lynde	12	Aug.	107
Chart for Rapid Calculation of Relative Humidity, W. F. Schaphorst	13	Sept.	48
Production of Non-Corrosive Inert Gas by the Combustion of Fuel Gas, Thomas S. Bacon	13	Sept.	51
Care Should Be Exercised in Cleaning Belts with Steam	13	Sept.	94
Restrictions Impede Progress of Arc Welding, C. M. Taylor	13	Sept.	130
Testing Boiler Feedwater, Roy W. Machen	13	Sept.	118
GEOGRAPHIC			
South America Becomes Increasingly Important in World Petroleum Industry, Wallace A. Sawdon	1	Oct.	104
New Discoveries Stimulate Interest in Ecuador, Wallace A. Sawdon	1	Oct.	107
Discovery on Inland Slope of Andes Increases Scope of Peru's Activity, Wallace A. Sawdon	1	Oct.	115
Brazilian Government Begins Aggressive Exploratory Program, Wallace A. Sawdon	1	Oct.	126
Recent Developments Have Materially Strengthened Eastern Venezuela's Position, Wallace A. Sawdon	1	Oct.	130
Color Map of Argentina	1	Oct.	150
Color Map of Colombia	1	Oct.	154
Color Map of Ecuador	1	Oct.	158
Color Map of Peru	1	Oct.	162
Color Map of Trinidad	1	Oct.	166
Color Map of Eastern Venezuela	1	Oct.	170
Color Map of Western Venezuela	1	Oct.	174
Refineries on Island of Aruba Incorporate Modern Improvements, Wallace A. Sawdon	1	Oct.	179
Western Venezuela Maintains Leadership in South America, Wallace A. Sawdon	1	Oct.	184
World's Longest 16-in. Oil Pipe Line Laid in Eastern Venezuela, Frank H. Love	1	Oct.	193
Excellent Living Conditions Provided Employees in Venezuela, Wallace A. Sawdon	1	Oct.	198
Colombia's Oil Possibilities Being Actively Explored and Developed, Wallace A. Sawdon	1	Oct.	205
Petroleum Development in Trinidad, Wallace A. Sawdon	1	Oct.	209
Natural Gasoline Plants in Argentina Employ Up-to-Date Processes, The Staff of Y. P. F.	1	Oct.	210B
Intensified Operations in Existing Fields Have Characterized Argentina Oil Industry, The Staff of Y. P. F.	1	Oct.	210E
Refineries of Argentina Include Well-Balanced Plants, The Staff of Y. P. F.	1	Oct.	212
Geophysical Prospecting in South America, W. R. Ransone	1	Oct.	218
Isolated Fields of Colombia Necessitate Adequate Maintenance Facilities, H. W. Palkowsky and R. V. Welch	1	Oct.	218C
The Application of Displacement Pumping in Peru, John Henry	2	Nov.	67
"Slant-Hole" Drilling of Wells Employed in Argentina, The Staff of Y. P. F.	2	Nov.	80
Drilling and Completion of 10,000-ft. Well in Louisiana Gulf Coast, H. Lee Flood	3	Dec.	29
Electric Submersible Well Pump Performance in the St. Louis Pool, Oklahoma, W. H. Stueve	3	Dec.	38
Deep Test in Oklahoma Is Drilled by Diesel-Electric Rig, H. Lee Flood	3	Dec.	42
Company-Owned Railroad Important to Operation and Development of Oil Fields in Peru, E. C. Breene, Jr.	3	Dec.	50
Montana Refinery Provides Processing Facilities for Cut Bank Crude Oil	3	Dec.	89
Developments in Production Practice in California, Wallace A. Sawdon	10	Midy'r	63
Advancements in Drilling Technique in California, Wallace A. Sawdon	10	Midy'r	108
EXPLORATION			
Brazilian Government Begins Aggressive Exploratory Program, Wallace A. Sawdon	1	Oct.	126
Geophysical Prospecting in South America, W. R. Ransone	1	Oct.	218
Recent Progress in Geophysical, Geochemical, and Electrical Prospecting Methods for Petroleum, J. Brian Eby	10	Midy'r	122
DRILLING			
General			
Preliminary Design of Drilling Barge for Deep-Water Prospecting (Part 1), Royden H. Rogers	1	Oct.	21
Carelessness May Be the Cause of Accidents on Drilling Rig, R. G. Bennett	2	Nov.	140
Mechanical Practicability of Electrical Logging While Drilling, David G. Hawthorn and John E. Owen	4	Jan.	71
Compact Feedwater Heater Set-Up for the Drilling Rig, Chas. C. Lynde	5	Feb.	108
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 1), Paul D. Torrey and Frank H. Miller	5	Feb.	155
Internal-Combustion Engines in California Deep Drilling, Wallace A. Sawdon	5	Feb.	173
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 2), Paul D. Torrey and Frank H. Miller	6	Mar.	48
Layout and Care of Light Rotary Drilling Equipment, H. Lee Flood	6	Mar.	189
Drilling-Rig Layout for Water Locations in the Gulf Coast, I. W. Alcorn	7	Apr.	77
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 3), Paul D. Torrey and Frank H. Miller	7	Apr.	118
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 4), Paul D. Torrey and Frank H. Miller	8	May	103
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 5), Paul D. Torrey and Frank H. Miller	9	June	68
A Review of Oilfield Development and Drilling Methods, K. C. Sclater	10	Midy'r	13
Advancements in Drilling Technique in California, Wallace A. Sawdon	10	Midy'r	108
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 6), Paul D. Torrey and Frank H. Miller	11	July	70
Illinois Area Is Showplace for Lightweight Drilling Equipment, H. Lee Flood	12	Aug.	27
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 7), Paul D. Torrey and Frank H. Miller	12	Aug.	63
Deepening and Completing a Well in the Lisbon Field, Louisiana—A Study in Modern Cooperative Practice (Part 8, Concluded), Paul D. Torrey and Frank H. Miller	13	Sept.	124
Well Records			
Record of Penetration Rate Should Aid in Drilling-Time Studies, H. Lee Flood	1	Oct.	31
Mechanical Practicability of Electrical Logging While Drilling, David G. Hawthorn and John E. Owen	4	Jan.	71
Rate of Penetration in Drilling, K. C. Sclater	9	June	47
Drilling Time Studies as an Aid in Providing Accurate Knowledge of Formations, H. Lee Flood	11	July	23
Temperature Log Reveals Gas-Oil Contact Plane, Wallace A. Sawdon	13	Sept.	83

TITLE OF ARTICLE AND AUTHOR	No.	Month	Page
Drilling Methods			
Modified Form of Slim-Hole Drilling for Exploration Wells, M.A.ap Rhys Pryce	2	Nov.	29
"Slant-Hole" Drilling of Wells Employed in Argentina, The Staff of Y. P. F.	2	Nov.	80
Drilling and Completion of 10,000-ft. Well in Louisiana Gulf Coast, H. Lee Flood	3	Dec.	29
Deep Test in Oklahoma Is Drilled by Diesel-Electric Rig, H. Lee Flood	3	Dec.	42
Largest Submersible Drilling Barge Combines Best Features of Marine Design, H. Lee Flood	5	Feb.	31
High Rotary Speeds in California Drilling, Wallace A. Sawdon	6	Mar.	33
Rotary Super-Rig of Advanced Design Is Largest in Operation, Wallace A. Sawdon	7	Apr.	153
Electric Equipment on Rotary Drilling Rigs, G. R. Prout	8	May	33
Drilling and Completion Practices in Illinois Basin Involving Use of Lightweight Alloy Metal, Ralph C. Graham	8	May	121
High-Pressure Salt-Water Flow Need No Longer Spell Defeat in Drilling Operations, M. L. Cashion	12	Aug.	90
Importance of Drill-Pipe String in California Deep Drilling, Wallace A. Sawdon	13	Sept.	23
Hydraulic Torque Converter Used on Illinois Drilling Rig, H. Lee Flood	13	Sept.	31
Casing and Cementing			
Use of Bulk Cement in Wells	11	July	74
New Fast-Setting Cement Is Valuable Odd-Job Adjunct, R. K. Henderson	13	Sept.	93
Casing Cutting Tool May Stimulate Exploitation of Cased-Off Sands in Older Fields, H. Lee Flood	13	Sept.	107
Control of High-Pressure Wells			
Chains and Golf Balls Play Part in "Killing" Wild Gas Well, K. C. Sclater	8	May	23
Finishing Wells			
Drilling and Completion Practices in Illinois Basin Involving Use of Lightweight Alloy Metal, Ralph C. Graham	8	May	121
PRODUCTION			
General			
Data on Gas-Driven Pool Disclose Characteristics Differing from Water-Driven Reservoirs, Alec M. Crowell	1	Oct.	25
Lightweight Pumping Equipment Saves Small-Potential Wells from Abandonment, W. H. Stueve	1	Oct.	46
Development and Early Exploitation of a Water-Driven Oil Pool Under Proration, Alec M. Crowell	2	Nov.	21
Heating and Dehydrating Natural Gas at the Wellhead, J. E. Moore	3	Dec.	27
Electric Submersible Well Pump Performance in the St. Louis Pool, Oklahoma, W. H. Stueve	3	Dec.	38
Temperature-Gravity Graph for Gravity Determinations, O. G. Vanderveer	3	Dec.	56
Efficiency and Load Tests on Well-Pumping Unit, Bayo Hopper	4	Jan.	38
Proper Installation of Pumping Unit Essential to Satisfactory Service, Kenneth N. Mills	4	Jan.	67
A Method of Installing Catenary Pull-Rod Lines, K. C. Sclater	5	Feb.	27
Protecting Pumping Equipment from Flood Waters, Earl L. Allison	5	Feb.	85
Air and Fuel-Gas Cleaners Installed on Engine Driving Geared-Power, J. C. Albright	6	Mar.	88
The Compressibility of Gases (Part 4), George Granger Brown	7	Apr.	132
The Behavior of Oil and Gas Under High Pressures and Temperatures (Part 1), Harvey T. Kennedy	9	June	117
Recent Trends in Petroleum Production Research, Lester C. Uren	10	Midy'r	17
Review of Recent Trends in Production Methods, H. Lee Flood	10	Midy'r	35
Developments in Production Practice in California, Wallace A. Sawdon	10	Midy'r	63
The Behavior of Oil and Gas Under High Pressures and Temperatures (Part 2, Concluded), Harvey T. Kennedy	11	July	77
Proper Sealing of Abandoned Wells Important in Mining Areas, F. R. Cozzens	12	Aug.	104
Pressure Distribution About a Slotted Liner in a Producing Oil Well (Part 1), Frank G. Miller	13	Sept.	109
Operating Methods			
Bottom-hole Agitation Removes Solution Gas from Fluid in Pumping Wells, H. Lee Flood	2	Nov.	27
The Application of Displacement Pumping in Peru, John Henry	2	Nov.	67
Characteristics and Requirements of Portable Well-Servicing Units, W. K. Atcheson	3	Dec.	121
Bottom-Hole Well Regulators, K. C. Sclater	4	Jan.	25
Gas-Lift Practice in West Texas Fields, H. Lee Flood	4	Jan.	27
Zinc Guides Reduce Electrolytic Pitting of Sucker Rods, H. Lee Flood	6	Mar.	31
Reducing Rod-Line Friction, Chas. C. Lynde	6	Mar.	193
Gravel-Packing Injection Wells for Recycling Gas Is Important Phase of Completion, H. Lee Flood	9	June	53
Multiple Production from Several Zones Controlled by Bottom-Hole Chokes, Wallace A. Sawdon	9	June	109
Electric Generating Plants on Kansas Producing Properties, R. A. Axe	9	June	132
Progress and Trends in Gas-Lift Operations, S. F. Shaw	10	Midy'r	50
Electric Power for Oil-Well Pumping in East Texas, J. E. Moody	11	July	43
Motor-Driven Submerged Power Pump Tested in California Fields, Wallace A. Sawdon	11	July	67
Gas and Oil Separation Practices in Deep Fields of California, Wallace A. Sawdon	12	Aug.	42
Casing Cutting Tool May Stimulate Exploitation of Cased-Off Sands in Older Fields, H. Lee Flood	13	Sept.	107
Acid-Treating			
Acid Treatment of Sand Well Revives Production, H. Lee Flood	5	Feb.	170
Improved Acidizing Mixtures Speed Separation of Spent Acid and Oil, C. E. Clason	7	Apr.	166
Removal of Drilling Mud from Formation by Use of Acid, Stanley C. Morian	8	May	117
Paraffin Removal			
Central Steam Equipment Used to Remove Paraffin from Tubing in West Texas	5	Feb.	45
Secondary Recovery			
Dual Purpose Well Salvaged for Repressuring After Blowout and Fire, Wallace A. Sawdon	5	Feb.	46
Factors That Determine Profitable Secondary Recovery, Ralph T. Zook	6	Mar.	23
Analysis of Delayed Drilling Program in Water-Flooding Project, Paul M. Phillippi	7	Apr.	103
New Dehydration-Refrigeration Plants Involve Use of Diethylene Glycol, H. Lee Flood	8	May	113
Gravel-Packing Injection Wells for Recycling Gas is Important Phase of Completion, H. Lee Flood	9	June	53
Progress and Trends in Water-Flood Districts of Appalachian Areas, Paul M. Phillippi	10	Midy'r	75
OIL TRANSPORTATION			
Pipe Line			
General			
Graphic Interpretation of Evaporation Losses from Vented Tanks, R. F. Larson and J. A. Goff	2	Nov.	42
Temperature-Gravity Graph for Gravity Determinations, O. G. Vanderveer	3	Dec.	56
Cathodic Protection of Oil Storage Tank Bottoms, Donald H. Bond	6	Mar.	100
Portable Pumps in Oil Pipe-Line Gathering Systems in Illinois Basin, J. W. Meehan	6	Mar.	117
Automatic Devices in Telephone Systems Aid Pipe-Line Operation, F. P. O'Connor	6	Mar.	140
Protective Coatings on Aboveground Pipe-Line Structures, C. F. Rassweiler	6	Mar.	183
Determination of Minor Variations in Line Pressure or Volume of Crude Oil Being Pumped, Frank E. Hangs	6	Mar.	188
Life of Metal Pump Valves Increased by Use of Composition Disks, Harold H. Yackey	7	Apr.	192
Increasing Use of Wrinkle Bending in Pipe-Line Construction, F. C. Hutchison	9	June	113
Aerial Surveys in Pipe-Line Reconnaissance, Herbert Thayer Bruce	10	Midy'r	88
Pipe Line Construction			
World's Longest 16-in. Oil Pipe Line Laid in Eastern Venezuela, Frank H. Love	1	Oct.	193
Design and Construction of Oil Pipe Line in Rocky Mountain Area, H. Lee Flood	3	Dec.	21
The Use of Arc-Welding in Reconditioning Pipe Lines, C. M. Taylor	3	Dec.	74
Electric-Arc Roll-Welding and Stove-Pipe Welding in Pipe Line Construction, Harold C. Price	6	Mar.	143
Modern Equipment Is Adopted in Pipe Line Communications, Warren T. Bulla	6	Mar.	150
Snow-Covered Pipe-Line Right-of-Way Photographed from Air, Frank H. Love	6	Mar.	154
Bolted Couplings of Various Types Are Used in Pipe-Line Construction	6	Mar.	162
Recommendations for Stove-Piping and Roll-Welding Line Pipe, C. M. Taylor	6	Mar.	177
Latest Methods and Equipment Used in Pipe-Line Reconditioning Work, Frank H. Love	7	Apr.	81
Recent Developments in Pipe-Line Construction, Frank H. Love	10	Midy'r	44
Construction Features of New Illinois Pipe Line, Frank H. Love	11	July	29
Pipe Line Protection			
Methods of Studying Microbiological Anaerobic Corrosion of Pipe Lines (Part 1), Raymond L. Hadley	6	Mar.	171
Methods of Studying Microbiological Anaerobic Corrosion of Pipe Lines (Part 2), Raymond L. Hadley	7	Apr.	112
Modern Practices in the Protection of Pipe Lines Against Corrosion, Starr Thayer	10	Midy'r	131
Pipe-to-Soil Potentials in Cathodic Protection Systems, Walter F. Rogers	13	Sept.	33
Pumping Stations			
Alignment Chart for Determining Pump Displacements as Related to Plunger Diameters, Frank E. Hangs	4	Jan.	80
Selection of Electric Motors for Pipe-Line Service and Cost of Maintaining Them, W. H. Stueve	6	Mar.	156
Pump Station on Oil Pipe Line Designed for Ready Dismantling, J. C. Albright	7	Apr.	158
GAS TRANSPORTATION			
Pipe Line			
General			
Heating and Dehydrating Natural Gas at the Wellhead, J. E. Moore	3	Dec.	27
Graphic Method Facilitates Gas Pipe Line Flow Calculations, G. H. McKay	5	Feb.	99
Changes and Improvements in Natural Gas Pipe Lines, J. Stanley Stevenson	6	Mar.	113
Streamlined Pressure Vessels Solve Petroleum Industry's Newest Storage Problems, D. E. Larson	6	Mar.	126
Automatic Devices in Telephone Systems Aid Pipe-Line Operation, F. P. O'Connor	6	Mar.	140
Hydrate Control in High-Pressure Condensate Lines, Robert M. Hutchison	6	Mar.	146
Laws of Fluid Flow in Rough Pipes (Part 1), J. Nikuradse	6	Mar.	164
Dehydration for the Smaller Natural Gas Pipe-Line Systems, J. E. Moore	6	Mar.	181
Protective Coatings on Aboveground Pipe-Line Structures, C. F. Rassweiler	6	Mar.	183
Laws of Fluid Flow in Rough Pipes (Part 2), J. Nikuradse	8	May	75
Increasing Use of Wrinkle Bending in Pipe-Line Construction, F. C. Hutchison	9	June	113

G. Engr.
Prof. G. G. Brown

TITLE OF ARTICLE AND AUTHOR	No.	Month	Page
Laws of Fluid Flow in Rough Pipes (Part 3), J. Nikuradse	9	June	124
Developments in the Removal of Hydrogen Sulphide from Natural and Refining Gases, W. A. Leech, Jr.	10	Midy'r	97
Modern Practices in the Dehydration of Natural Gas, T. S. Bacon	10	Midy'r	82
Aerial Surveys in Pipe-Line Reconnaissance, Herbert Thayer Bruce	10	Midy'r	88
Pipe Line Construction			
The Use of Arc-Welding in Reconditioning Pipe Lines, C. M. Taylor	3	Dec.	74
Many Construction Problems Involved in Laying of New Gas Line, Frank H. Love	5	Feb.	87
Natural Gas Pipe-Line Suspension Bridge Over the Missouri River, Gordon R. Lunt	6	Mar.	120
Electric-Arc Roll-Welding and Stove-Pipe Welding in Pipe Line Construction, Harold C. Price	6	Mar.	143
Modern Equipment Is Adopted in Pipe Line Communications, Warren T. Bulla	6	Mar.	150
Snow-Covered Pipe-Line Right-of-Way Photographed from Air, Frank H. Love	6	Mar.	154
Bolted Couplings of Various Types Are Used in Pipe-Line Construction	6	Mar.	162
Recommendations for Stove-Piping and Roll-Welding Line Pipe, C. M. Taylor	6	Mar.	177
Recent Developments in Pipe-Line Construction, Frank H. Love	10	Midy'r	44
Pipe Line Protection			
Determining Minimum Current Required to Provide Adequate Cathodic Protection (Part 1), Dave Harrell and Milton Clerc	1	Oct.	38
Location and Installation of Ground Beds, D. F. Ball	1	Oct.	91
Practical Application of Electrolysis Prevention on Pipe Lines and in Compressor Stations (Part 1), Paul F. Marx	4	Jan.	48
Determining Minimum Current Required to Provide Adequate Cathodic Protection (Part 2, Concluded), Dave Harrell and Milton Clerc	4	Jan.	64
Practical Application of Electrolysis Prevention on Pipe Lines and in Compressor Stations (Part 2), Paul F. Marx	5	Feb.	51
Methods of Studying Microbiological Anaerobic Corrosion of Pipe Lines (Part 1), Raymond F. Hadley	6	Mar.	171
Methods of Studying Microbiological Anaerobic Corrosion of Pipe Lines (Part 2), Raymond F. Hadley	7	Apr.	112
Review of Recent Contributions to Study of Pipe-Line Corrosion, Dave Harrell	10	Midy'r	127
Modern Practices in the Protection of Pipe Lines Against Corrosion, Starr Thayer	10	Midy'r	131
Careful Cost Study Leads Gas Company to Selection of Cathodic Protection, H. C. Gear	12	Aug.	29
Pipe-to-Soil Potentials in Cathodic Protection Systems, Walter F. Rogers	13	Sept.	33
Compressor Stations			
Method of Designing Charts for Determining Compressor Capacities, G. H. McKay	2	Nov.	84
The Compressibility of Gases (Part 1), George Granger Brown	4	Jan.	21
Practical Application of Electrolysis Prevention on Pipe Lines and in Compressor Stations (Part 1), Paul F. Marx	4	Jan.	48
The Compressibility of Gases (Part 2), George Granger Brown and Dysart E. Holcomb	5	Feb.	23
Practical Application of Electrolysis Prevention on Pipe Lines and in Compressor Stations (Part 2), Paul F. Marx	5	Feb.	51
The Compressibility of Gases (Part 3), George Granger Brown	6	Mar.	27
Supercompressibility Data Correlated Into Usable Form, Paul F. Marx	6	Mar.	103
Installation of Angle-Type Units in Main Line Compressor Station, George T. Koch	6	Mar.	135
Increasing the Capacity of Dust Scrubbers in Natural Gas Pipe-Line Systems	6	Mar.	160
The Compressibility of Gases (Part 4), George Granger Brown	7	Apr.	132
Piping and Header Design to Minimize Pressure Drop, C. S. Worley and D. K. Hutchcraft	8	May	44
Natural Gas Compressor Station Operation and Maintenance Problems, C. S. Kenworthy	10	Midy'r	100
Laws of Fluid Flow in Rough Pipes (Part 4), J. Nikuradse	11	July	38
Laws of Fluid Flow in Rough Pipes (Part 5, Concluded), J. Nikuradse	12	Aug.	83
GASOLINE TRANSPORTATION			
Pipe Line			
Construction Features of East Texas-Beaumont Natural Gasoline-Butane Line, Frank H. Love	2	Nov.	116
Operating Experience Dictates Advanced Design of New Gasoline Pipe Line, Stanley Learned	6	Mar.	119
Construction Features in Laying of Gasoline Pipe-Line Extension, Frank H. Love	6	Mar.	168
GAUGING AND METERING			
Oil			
Pipe-Line Gauger's Car Equipped for Efficiency, Bill Davis	5	Feb.	110
Improved Technique in Measuring, Sampling, and Testing Crude Oil, Otto D. Stallard, Jr.	10	Midy'r	72
Writing Ticket and Making Shut-Off Essential Part of Gauger's Work, Otto D. Stallard, Jr.	13	Sept.	61
Gas			
Machine for Wrapping Diaphragms of Large Displacement Meters, Roy W. Parker	4	Jan.	62
REFINING			
General			
Refineries on Island of Aruba Incorporate Modern Improvements, Wallace A. Sawdon	1	Oct.	179
Refineries of Argentina Include Well-Balanced Plants, The Staff of Y. P. F.	1	Oct.	212
Montana Refinery Provides Processing Facilities for Cut Bank Crude Oil	3	Dec.	89
Removal of Salts from Boiler Feedwater Essential to Efficient Operation, Roy W. Machen	5	Feb.	104
Refinery Steam and Its Efficient Utilization (Part 1), R. G. Lovell	9	June	63
Improved Processes in Manufacture of Motor Fuels from Petroleum, Gustav Egloff	10	Midy'r	21
Refinery Steam and Its Efficient Utilization (Part 2, Concluded), R. G. Lovell	12	Aug.	48
Testing Boiler Feedwater, Roy W. Machen	13	Sept.	118
Production of Non-Corrosive Inert Gas by the Combustion of Fuel Gas, Thomas S. Bacon	13	Sept.	51
Refining Methods			
Polymerization of Hydrocarbons Present in Natural Gas, Rafael Fussteig	1	Oct.	219
Pyrolytic Alkylation of Hydrocarbons, Rafael Fussteig	2	Nov.	45
Solvent Dewaxing of Oils, B. Kwal	2	Nov.	73
Catalytic Air-Oxidation of Hydrocarbons (Part 1), Rafael Fussteig	3	Dec.	34
The Technology of Refining Processes (Article 1), Arch L. Foster	4	Jan.	31
Catalytic Air-Oxidation of Hydrocarbons (Part 2, Concluded), Rafael Fussteig	4	Jan.	58
The Technology of Refining Processes (Article 2), Arch L. Foster	5	Feb.	39
Electrical Pyrolysis of Hydrocarbons, Rafael Fussteig	5	Feb.	58
The Technology of Refining Processes (Article 3), Arch L. Foster	6	Mar.	36
Destructive Hydrogenation Improves Product from Inferior Hydrocarbons, Rafael Fussteig	6	Mar.	56
The Technology of Refining Processes (Article 4), Arch L. Foster	7	Apr.	88
The Technology of Refining Processes (Article 5), Arch L. Foster	8	May	29
Synthesis of Petroleum-Like Hydrocarbons from Carbonaceous Material, Rafael Fussteig	8	May	95
The Technology of Refining Processes (Article 6), Arch L. Foster	9	June	49
Progress in Refining of Crude Petroleum, Arch L. Foster	10	Midy'r	28
Developments in the Removal of Hydrogen Sulphide from Natural and Refining Gases, W. A. Leech, Jr.	10	Midy'r	97
The Technology of Refining Processes (Article 7), Arch L. Foster	11	July	25
The Technology of Refining Processes (Article 8), Arch L. Foster	12	Aug.	33
Refining Lubricants by Solvent Extraction, Arch L. Foster	13	Sept.	40
Refined Products			
The Development of Anti-Knock Motor Fuel (Part 2, Concluded), A. W. Trusty	1	Oct.	34
NATURAL GASOLINE			
The Distillation Process of Natural Gasoline Extraction, Roy W. Machen	1	Oct.	96
Natural Gasoline Plants in Argentina Employ Up-to-Date Processes, The Staff of Y. P. F.	1	Oct.	210B
Fractionating Equipment for Obtaining Special Products in Natural Gasoline Plants, H. C. Givens	2	Nov.	51
New Gasoline Plant in Shreveport Field, Louisiana, Has Capacity of 25,000,000 Cu. Ft. Gas, Frank H. Love	3	Dec.	31
Steam Generation in the Natural Gasoline Plant, Roy W. Machen	3	Dec.	114
Construction Features of High-Pressure Absorption-Type Natural Gasoline Plant, D. H. Huff and Don Attaway	4	Jan.	100
Removal of Salts from Boiler Feedwater Essential to Efficient Operation, Roy W. Machen	5	Feb.	104
Design, Construction, and Operating Features of World's Largest High-Pressure Condensate Recovery and Pressure Maintenance Plant, Ray C. Fish	5	Feb.	121
Engineering Considerations Underlying Design of Plant, Henry N. Wade	5	Feb.	129
All Plant Equipment and Auxiliaries Meet Rigid Specifications and Include Latest Automatic Control Devices, E. E. DeBack	5	Feb.	144
The Stabilization Process of Natural Gasoline Extraction, Roy W. Machen	6	Mar.	83
Streamlined Pressure Vessels Solve Petroleum Industry's Newest Storage Problems, D. E. Larson	6	Mar.	126
Compact, Efficient Equipment in New Gasoline Plant, D. N. Barrow and Don Attaway	7	Apr.	159
The Compressibility of Gases (Part 5), George Granger Brown	8	May	25
Operating Data on Gas-Engine-Driven Compressors in East Texas Gasoline Plant, H. H. Beeson	8	May	84
New Dehydration-Refrigeration Plants Involve Use of Diethylene Glycol, H. Lee Flood	8	May	113
Vapor-Liquid Phase Equilibria in Hydrocarbon Systems (Part 6), George Granger Brown	9	June	55
Laws of Mechanics Illustrated in Gasoline Plant Operation, J. A. Campbell	9	June	76
Developments and Trends in the Natural Gasoline Industry, J. W. Vaiden and F. E. Fisher	10	Midy'r	93
Recent Developments in Recycling Operations, Emby Kaye	10	Midy'r	116
Vapor-Liquid Phase Equilibria in Hydrocarbon Systems (Part 7), George Granger Brown and Dysart E. Holcomb	11	July	31
Vapor-Liquid Phase Equilibria in Hydrocarbon Systems (Part 8), George Granger Brown and Dysart E. Holcomb	12	Aug.	23
Recycling Plant Owner Selects High-Pressure Absorption, Frank H. Love	12	Aug.	54
New Plant Indicates Recycling Not Limited to Large Properties, Ray C. Fish	12	Aug.	99
Vapor-Liquid Phase Equilibria in Hydrocarbon Systems (Part 9), George Granger Brown and Dysart E. Holcomb	13	Sept.	27
Gasoline Plant Converted to Combination Refinery-Natural Gasoline Plant, A. J. MacKinnon and Don Attaway	13	Sept.	58
New Recycling Plant Departs from Conventional Processing, Frank H. Love	13	Sept.	86
One Hundred Million Cu. Ft. Recycling Plant Placed in Operation, Frank H. Love	13	Sept.	98

AUTHOR INDEX

Page

Adams, Orville
Vol. 11, No. 6 89
Albright, J. C.
Vol. 11, No. 6 88
Vol. 11, No. 7 158
Alcorn, I. W.
Vol. 11, No. 7 77
Allison, Earl L.
Vol. 11, No. 5 85
Anonymous
Vol. 11, No. 3 89
Vol. 11, No. 5 45
Vol. 11, No. 6 ..... 160, 162
Vol. 11, No. 11 74
Vol. 11, No. 13 94
Atcheson, W. K.
Vol. 11, No. 3 121
Attaway, Don
Vol. 11, No. 4 100
Vol. 11, No. 7 159
Vol. 11, No. 13 58
Axe, R. A.
Vol. 11, No. 9 132
Bacon, Thomas S.
Vol. 11, No. 10 82
Vol. 11, No. 13 51
Ball, D. F.
Vol. 11, No. 1 91
Barrow, D. N.
Vol. 11, No. 7 159
Beeson, H. H.
Vol. 11, No. 8 84
Bennett, R. G.
Vol. 11, No. 2 140
Bigbee, North
Vol. 11, No. 1 67
Vol. 11, No. 2 123
Vol. 11, No. 3 97
Bond, Donald H.
Vol. 11, No. 6 100
Breene, E. C., Jr.
Vol. 11, No. 3 50
Brown, Geo. G.
Vol. 11, No. 4 21
Vol. 11, No. 5 23
Vol. 11, No. 6 27
Vol. 11, No. 7 132
Vol. 11, No. 8 25
Vol. 11, No. 9 55
Vol. 11, No. 11 31
Vol. 11, No. 12 23
Vol. 11, No. 13 27
Bruce, Herbert Thayer
Vol. 11, No. 10 88
Bulla, Warren T.
Vol. 11, No. 6 150
Campbell, J. A.
Vol. 11, No. 9 76
Cashion, M. L.
Vol. 11, No. 12 90
Clason, C. E.
Vol. 11, No. 7 166
Clerc, Milton
Vol. 11, No. 1 38
Vol. 11, No. 4 64
Cozzens, F. R.
Vol. 11, No. 12 104
Crowell, Alec M.
Vol. 11, No. 1 25
Vol. 11, No. 2 21
Davis, Bill
Vol. 11, No. 5 110
Davis, F. Rutledge
Vol. 11, No. 3 66
DeBack, E. E.
Vol. 11, No. 5 144
Eby, J. Brian
Vol. 11, No. 10 122
Egloff, Gustav
Vol. 11, No. 10 21
Fish, Ray C.
Vol. 11, No. 5 121
Vol. 11, No. 12 99
Fisher, F. E.
Vol. 11, No. 10 93
Fitzgerald, P. E.
Vol. 11, No. 7 161
Flood, H. Lee
Vol. 11, No. 1 31
Vol. 11, No. 2 27
Vol. 11, No. 3 ..... 21, 29, 42
Vol. 11, No. 4 27
Vol. 11, No. 5 ..... 31, 170
Vol. 11, No. 6 ..... 31, 189
Vol. 11, No. 8 113
Vol. 11, No. 9 53
Vol. 11, No. 10 35
Vol. 11, No. 11 23
Vol. 11, No. 12 27
Vol. 11, No. 13 ..... 31, 107
Foster, Arch L.
Vol. 11, No. 4 31
Vol. 11, No. 5 39
Vol. 11, No. 6 36
Vol. 11, No. 7 88
Vol. 11, No. 8 29
Vol. 11, No. 9 49
Vol. 11, No. 10 28
Vol. 11, No. 11 25
Vol. 11, No. 12 33
Vol. 11, No. 13 40
Fussteig, Rafael
Vol. 11, No. 1 219
Vol. 11, No. 2 45
Vol. 11, No. 3 34
Vol. 11, No. 4 58
Vol. 11, No. 5 58

Page

Vol. 11, No. 6 56
Vol. 11, No. 8 95
Gear, H. C.
Vol. 11, No. 12 29
Givens, H. C.
Vol. 11, No. 2 51
Goff, J. A.
Vol. 11, No. 2 42
Graham, Ralph C.
Vol. 11, No. 8 121
Hadley, Raymond L.
Vol. 11, No. 6 171
Vol. 11, No. 7 112
Hangs, Frank E.
Vol. 11, No. 3 94
Vol. 11, No. 4 80
Vol. 11, No. 6 188
Harrell, Dave
Vol. 11, No. 1 38
Vol. 11, No. 4 64
Vol. 11, No. 10 127
Hawthorn, David G.
Vol. 11, No. 4 71
Henderson, R. K.
Vol. 11, No. 13 93
Henry, John
Vol. 11, No. 2 67
Holcomb, Dysart E.
Vol. 11, No. 5 23
Vol. 11, No. 11 31
Vol. 11, No. 12 23
Vol. 11, No. 13 27
Hopper, Bayo
Vol. 11, No. 4 38
Huff, D. H.
Vol. 11, No. 4 100
Hutchcraft, D. K.
Vol. 11, No. 8 44
Hutchison, F. C.
Vol. 11, No. 9 113
Hutchison, Robert M.
Vol. 11, No. 6 146
Kaye, Emby
Vol. 11, No. 10 116
Kennedy, Harvey T.
Vol. 11, No. 9 117
Vol. 11, No. 11 77
Kenworthy, C. S.
Vol. 11, No. 10 100
Koch, Geo. T.
Vol. 11, No. 6 135
Kwal, B.
Vol. 11, No. 2 73
Larson, D. E.
Vol. 11, No. 6 126
Larson, R. F.
Vol. 11, No. 2 42
Learned, Stanley
Vol. 11, No. 6 110
Leech, W. A., Jr.
Vol. 11, No. 10 97
Love, Frank H.
Vol. 11, No. 1 193
Vol. 11, No. 2 116
Vol. 11, No. 3 31
Vol. 11, No. 5 87
Vol. 11, No. 6 ..... 154, 168
Vol. 11, No. 7 81
Vol. 11, No. 10 44
Vol. 11, No. 11 29
Vol. 11, No. 12 54
Vol. 11, No. 13 ..... 86, 98
Lovell, R. G.
Vol. 11, No. 9 63
Vol. 11, No. 12 48
Lunt, Gordon R.
Vol. 11, No. 6 120
Lynde, Chas. C.
Vol. 11, No. 5 108
Vol. 11, No. 6 193
Vol. 11, No. 7 167
Vol. 11, No. 11 36
Vol. 11, No. 12 107
MacKinnon, A. J.
Vol. 11, No. 13 58
McKay, G. H.
Vol. 11, No. 2 34
Vol. 11, No. 5 99
Machen, Roy W.
Vol. 11, No. 1 96
Vol. 11, No. 3 114
Vol. 11, No. 5 104
Vol. 11, No. 6 83
Vol. 11, No. 13 118
Marx, Paul F.
Vol. 11, No. 4 48
Vol. 11, No. 5 51
Vol. 11, No. 6 103
Meehan, J. W.
Vol. 11, No. 6 117
Miller, Frank G.
Vol. 11, No. 13 109
Miller, Frank H.
Vol. 11, No. 5 155
Vol. 11, No. 6 48
Vol. 11, No. 7 118
Vol. 11, No. 8 103
Vol. 11, No. 9 68
Vol. 11, No. 11 70
Vol. 11, No. 12 63
Vol. 11, No. 13 124
Mills, Kenneth N.
Vol. 11, No. 1 84
Vol. 11, No. 4 67
Moody, J. E.
Vol. 11, No. 11 43

Page

Moore, J. E.
Vol. 11, No. 3 27
Vol. 11, No. 6 181
Morian, Stanley C.
Vol. 11, No. 8 117
Nikuradse, J.
Vol. 11, No. 6 164
Vol. 11, No. 8 75
Vol. 11, No. 9 124
Vol. 11, No. 11 38
Vol. 11, No. 12 83
O'Connor, F. P.
Vol. 11, No. 6 140
Owen, John E.
Vol. 11, No. 4 71
Palkowsky, H. W.
Vol. 11, No. 1 ..... 218C
Parker, Roy W.
Vol. 11, No. 4 62
Phillippi, Paul M.
Vol. 11, No. 7 103
Vol. 11, No. 10 76
Price, Harold C.
Vol. 11, No. 6 143
Prout, G. R.
Vol. 11, No. 8 33
Ransone, W. R.
Vol. 11, No. 1 218
Rassweiler, C. F.
Vol. 11, No. 6 183
Rhys Pryce, M.A. ap
Vol. 11, No. 2 29
Rogers, Royden H.
Vol. 11, No. 1 21
Rogers, Walter F.
Vol. 11, No. 13 33
Sawdon, W. A.
Vol. 11, No. 1 ..... 104, 107, 115, 126, 130, 179, 184, 198, 205, 209
Vol. 11, No. 5 ..... 46, 173
Vol. 11, No. 6 33
Vol. 11, No. 7 153
Vol. 11, No. 9 109
Vol. 11, No. 10 ..... 63, 108
Vol. 11, No. 11 67
Vol. 11, No. 12 42
Vol. 11, No. 13 ..... 23, 83
Schaefer, R. M.
Vol. 11, No. 2 56
Schaphorst, W. F.
Vol. 11, No. 5 112
Vol. 11, No. 13 48
Sclater, K. C.
Vol. 11, No. 4 25
Vol. 11, No. 5 27
Vol. 11, No. 8 23
Vol. 11, No. 9 47
Vol. 11, No. 10 13
Shaw, S. F.
Vol. 11, No. 10 50
Sidwell, Carroll V.
Vol. 11, No. 7 73
Spencer, E. R.
Vol. 11, No. 9 139
Stallard, Otto D., Jr.
Vol. 11, No. 10 72
Vol. 11, No. 13 61
Stevenson, J. Stanley
Vol. 11, No. 6 113
Stueve, W. H.
Vol. 11, No. 1 46
Vol. 11, No. 3 38
Vol. 11, No. 6 156
Suverkrop, Lew
Vol. 11, No. 3 69
Taylor, C. M.
Vol. 11, No. 3 74
Vol. 11, No. 6 177
Vol. 11, No. 13 130
Thayer, Starr
Vol. 11, No. 10 131
Torrey, Paul D.
Vol. 11, No. 5 155
Vol. 11, No. 6 48
Vol. 11, No. 7 118
Vol. 11, No. 8 103
Vol. 11, No. 9 68
Vol. 11, No. 11 70
Vol. 11, No. 12 63
Vol. 11, No. 13 124
Trusty, A. W.
Vol. 11, No. 1 34
Uren, Lester C.
Vol. 11, No. 1 53
Vol. 11, No. 2 85
Vol. 11, No. 4 85
Vol. 11, No. 5 69
Vol. 11, No. 6 69
Vol. 11, No. 10 17
Vaiden, J. W.
Vol. 11, No. 10 93
Vanderveer, O. G.
Vol. 11, No. 3 56
Wade, Henry N.
Vol. 11, No. 5 129
Welch, R. V.
Vol. 11, No. 1 ..... 218C
Worley, C. S.
Vol. 11, No. 8 44
Yackey, Harold H.
Vol. 11, No. 7 192
Y. P. F. Staff
Vol. 11, No. 1 ..... 210B, 210E, 212
Vol. 11, No. 2 80
Zook, Ralph T.
Vol. 11, No. 6 23